

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NEURENT MEDICAL INC. & NEURENT MEDICAL LTD.,
Petitioner,

v.

AERIN MEDICAL INC.,
Patent Owner.

IPR2024-00282
Patent 11,766,286 B2

Before MICHAEL J. FITZPATRICK, ZHENYU YANG, and
MICHAEL A. VALEK, *Administrative Patent Judges*.

YANG, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Neurent Medical Inc. and Neurent Medical Ltd. (collectively, “Petitioner”) filed a Petition (Paper 3, “Pet.”) seeking *inter partes* review of claims 1–4 and 7–9 of U.S. Patent No. 11,766,286 B2 (Ex. 1001, “the ’286 patent”). Aerin Medical Inc. (“Patent Owner”) filed a Preliminary Response. Paper 7 (“Prelim. Resp.”).

We have authority under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a).

For the reasons provided below, we determine Petitioner has satisfied the threshold requirement set forth in 35 U.S.C. § 314(a). Accordingly, we institute *inter partes* review of all challenged claims based on all grounds raised in the Petition.

A. *Real Parties in Interest*

Each party identifies itself as the real party in interest. Pet. 2; Paper 6, 2.

B. *Related Matters*

According to the parties, Patent Owner asserted the ’286 patent and several other patents against Petitioner in *Aerin Medical Inc. and The Foundry LLC v. Neurent Medical Inc. and Neurent Medical Ltd.*, Case No. 1:23-cv-00756 (D. Del). Pet. 3; Paper 6, 2.

Petitioner filed several additional petitions for *inter partes* review, challenging certain claims of those other patents asserted in the district court action. Pet. 3; Paper 8.

C. *The '286 Patent*

The '286 patent relates to devices, systems and methods for treating nasal airways to “improve breathing by decreasing airflow resistance and/or improving nasal airflow or perceived airflow resistance in the nasal airways.” Ex. 1001, 4:20–24. According to the '286 patent, its devices, systems and methods may be used to “reshape, remodel, strengthen, or change the properties of the tissues of the nose.” *Id.* at 4:25–27.

The '286 patent explains that the nose is responsible for almost two thirds of the airflow resistance during respiration. *Id.* at 1:43–46. “[E]xcessive resistance to airflow can result in abnormalities of respiration, which can significantly affect a patient’s quality of life.” *Id.* at 1:51–53.

People can have poor nasal airflow from various causes, including allergic rhinitis and non-allergic rhinitis. *Id.* at 1:54–67, 4:4–11. The '286 patent states that “[w]hatever the cause, the tissues of the nasal valves are intimately involved in nasal airflow and nasal airflow inadequacy.” *Id.* at 4:11–13; *see also id.* at 1:61–62 (stating the nasal valve area is a site of significant nasal airflow resistance). According to the '286 patent, existing methods of correcting nasal valve inadequacy had significant shortcomings, and, thus, “there remains an unmet need in the art for non-invasive and minimally invasive methods and devices to improve nasal airflow.” *Id.* at 3:47–4:3, 4:14–16.

The '286 patent discloses

a device for treating a patient’s nasal airway comprises an elongate shaft having a proximal end and a distal end. The device further comprises a handle at the proximal end of the elongate shaft. The device also comprises a treatment element at the distal end of the elongate shaft. The treatment element is sized to be inserted into the nasal airway or to be delivered

external to a nose. The treatment element is configured to reshape a region of the nose to a new conformation and comprises an electrode configured to deliver radiofrequency (RF) energy to the nasal tissue.

Id. at 4:37–47.

D. Illustrative Claim

Of the challenged claims, only claim 1 is independent. It is illustrative of the claimed subject matter and is reproduced below.

1. [pre] A device for delivering energy to a nasal airway to treat rhinitis, the device comprising:

[a] a handle;

[b] a shaft extending from one end of the handle;

[c] a treatment element coupled with a distal end of the shaft, sized to be inserted into a nostril, and configured to change from a first configuration to a second configuration to contact nasal mucosa lining the nasal airway;

[d] multiple pairs of bipolar radiofrequency electrodes disposed on the treatment element;

[e] multiple radiofrequency output channels connected with the multiple pairs of bipolar radiofrequency electrodes, wherein each pair of the multiple pairs of bipolar radiofrequency electrodes is connected with a respective one of the multiple radiofrequency output channels; and

[f] at least one impedance sensor configured to measure impedance in the multiple pairs of bipolar radiofrequency electrodes.

Ex. 1001, 52:29–47 (bracketed numbering added).¹

¹ For convenience and consistency, we apply below Petitioner’s designations for the limitations of claim 1. *See* Pet. 100–101.

E. Asserted Challenges to Patentability

Petitioner asserts the following challenges to patentability:

Claim(s) Challenged	35 U.S.C. §²	References
1–3, 7–9	103	Edwards-’535, ³ Stern ⁴
8	103	Edwards-’535, Stern, Edwards-’886 ⁵
1–4, 7–9	103	Makower, ⁶ Stern, Edwards-’535
8	103	Makower, Stern, Edwards-’535, Edwards-’886
1–3, 7–9	103	Edwards-’535, Stern, Liang ⁷

² The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. §§ 102 and 103, effective March 16, 2013. On its face, the ’286 patent claims priority to several applications filed before the effective date of AIA. Ex. 1001, codes (60), (63). For purposes of the Petition, Petitioner does not challenge the priority claim. Pet. 5 n.1. Petitioner, however, notes that “[t]he ’286 patent was examined under the provisions of the AIA” and cites to the AIA version of these statutes in the Petition. *Id.* n.2. At this stage, Patent Owner does not address which version of the statute applies. Because “each of the relied-upon references qualifies as prior art regardless of whether the AIA or pre-AIA provisions apply” (*id.*), we discern no difference in our analysis, regardless of the version of the statute. Therefore, we apply the AIA version of §§ 102 and 103.

³ U.S. Patent No. 6,517,535 B2, issued Feb. 11, 2003 (Ex. 1010, “Edwards-’535”).

⁴ U.S. Patent No. 5,562,720, issued Oct. 8, 1996 (Ex. 1033, “Stern”).

⁵ U.S. Patent No. 6,273,886 B1, issued Aug. 14, 2001 (Ex. 1016, “Edwards-’886”).

⁶ U.S. Patent Appl. Pub. No. 2005/0240147 A1, published Oct. 27, 2005 (Ex. 1021) (“Makower”).

⁷ Liang et al., *Radiofrequency Treatment of Ethmoidal Nerve with Allergic Rhinitis Under Nasal Endoscopy*, 13 J. CLIN. OTORHINOLARYNGOL (China)

Claim(s) Challenged	35 U.S.C. § ²	References
8	103(a)	Edwards-’535, Stern, Liang, Edwards-’886
1–4, 7–9	103(a)	Makower, Stern, Edwards-’535, Liang
8	103(a)	Makower, Stern, Edwards-’535, Liang, Edwards-’886

Petitioner also relies on a declaration of Gregory T. Martin, Ph.D., to support its Petition. Ex. 1002.

II. ANALYSIS

A. *Level of Ordinary Skill in the Art*

Petitioner argues that an ordinarily skilled artisan at the relevant time would have had (1) a Doctor of Medicine (M.D.) or at least a bachelor of science degree in engineering or a related discipline and (2) at least three years of experience in the clinical use, design, development, and/or testing of medical devices, including medical devices that deliver energy to tissue. Pet. 17 (citing Ex. 1002 ¶¶ 24–28). Patent Owner does not address the skill level in its Preliminary Response.

At this stage, we find Petitioner’s definition of the level of ordinary skill in the art sufficiently supported by the record and apply it for purposes of this Decision.

B. *Claim Construction*

In an *inter partes* review, we construe a claim term “using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. [§] 282(b).” 37 C.F.R. § 42.100(b) (2020).

341–42 (1999) (Ex. 1056, “Liang”). Exhibit 1056 is a translation of the original Chinese language reference. *See* Ex. 1072.

Under that standard, the words of a claim “are generally given their ordinary and customary meaning,” which is “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc).

Petitioner argues that the preamble of claim 1 “to treat rhinitis” is not limiting. Pet. 18. According to Petitioner, the body of claim 1 recites a structurally complete apparatus, and the preamble only states an intended use for the device without limiting the claimed structure. *Id.* at 18–19. Patent Owner does not propose any claim construction. On this record, we find Petitioner’s argument persuasive and determine that the preamble of claim 1 “to treat rhinitis” is not limiting.

On this record and for purposes of this Decision, we see no need to expressly construe any other claim term.

C. Alleged Obviousness over Edwards-’535 and Stern

Petitioner asserts that claims 1–3 and 7–9 would have been obvious over the combination of Edwards-’535 and Stern. Pet. 25–60. Based on this record, and for at least the following reasons, we determine Petitioner has established a reasonable likelihood that it would prevail in this assertion.

1. Edwards-’535

Edwards-’535 explains that there are three nasal passageways from the nose to the pharynx and they can become obstructed. Ex. 1010, 1:60–63. “The turbinates, also referred to as nasal concha, are a series of tissues which form at least a portion of these nasal passageways.” *Id.* at 1:63–66. Edwards-’535 teaches an apparatus for ablating at least a portion of a nasal concha to reduce its size, which reduces or eliminates the obstruction of

a nasal meatus and improves airflow through a nasal meatus of the body. *Id.*, Abstract, 4:19–30.

To ablate a nasal concha, Edwards-’535 teaches introducing ablative energy into a section of the nasal concha tissue. *Id.* at 4:53–55. The ablative energy used “should be of a type which can penetrate into an internal section of tissue and cause ablative heating therein.” *Id.* at 3:31–36, 5:36–39.

An example of this type of energy is RF at all relevant frequencies. *Id.* at 5:39–43.

2. Stern

Stern teaches an endometrial ablation device “for in situ destruction of the inner lining of body organs, and more particularly the . . . destruction of the endometrium with selective use of a bipolar/monopolar application of RF energy.” Ex. 1033, Abstract, 1:17–21; *see also id.* at 3:12–13 (describing its apparatus selectively applies RF energy to a body organ).

Stern’s apparatus uses an expandable member, the outer surface of which contains one or more electrodes. *Id.* at 2:6–9. “RF current is passed through substantially the entire surface of the endometrium by activating the electrodes. The current is sufficient to resistively heat the endometrium in a single operation to a temperature within a range of between 45° C. to 90° C. for a time sufficient to destroy the cells of the lining.” *Id.* at 2:11–16; *see also* 3:13–19 (describing the apparatus “comprises an electrode means for effecting electrical contact with tissue of said body organ; a radio frequency power means for selectively providing current to said electrode means”).

Stern’s apparatus selectively delivers “either monopolar RF energy to a single electrode or bipolar RF energy to chosen pairs of an array of

separate electrodes which are used to bring the endometrial temperature to a desired level.” *Id.* at 2:36–40. According to Stern, “[t]he delivery of power can be improved by utilizing a bipolar construction.” *Id.* at 12:7–8; *see also id.* at 12:18–19 (“[I]mproved control can be achieved in many cases if a bipolar operation is utilized.”). The choice of either bipolar or monopolar can be made by control of the switches. *Id.* at 12:40–41; *see also id.* at 3:19–25 (describing the apparatus comprises “switching means for receiving an output from said radio frequency power means and for providing controllable delivery of power to said electrodes”).

3. Analysis

We focus our analysis on the sole independent claim 1. Petitioner asserts that the combination of Edwards-’535 and Stern teaches each limitation of claim 1. Pet. 25–36, 40–46.

For the preamble, Petitioner argues that Edwards-’535 teaches an apparatus 124 with an expandable member 132 and an energy delivery device 134. Pet. 25 (citing Ex. 1010, 5:20–26). The apparatus is introduced through a nostril 102 into a nasal meatus adjacent a surface of a nasal concha. *Id.*

Acknowledging that Edwards-’535 does not explicitly teach a handle as recited in limitation 1[a], Petitioner contends that “it would have been obvious to include a handle in Edwards-’535’s device to control the device and/or deploy the expandable member.” *Id.* at 26. According to Petitioner, Stern teaches an example of such a handle. *Id.* (citing Ex. 1033, 10:11–29, 10:37–49, 13:56–65, 14:5–8, 18:13–28, FIGs. 10a, 11a, 12).

For limitation 1[b], Petitioner argues that apparatus 124 of Edwards-’535 has a shaft. *Id.* at 28–29. Petitioner argues that although

Edwards-'535 does not explicitly teach that its shaft extends from one end of the handle, Stern does so. *Id.* at 29–30 (citing Ex. 1033, FIG. 10a).

According to Petitioner, “a shaft extending from one end of the handle is an obvious implementation of Edwards-'535 in view of Stern.” *Id.*

Referring to Figure 3B of Edwards-'535, Petitioner asserts that expandable member 132 and energy delivery device 134 constitute the treatment element recited in limitation 1[c]. *Id.* at 30–33. Figure 3B of Edwards-'535, as annotated by Petitioner, is reproduced below.

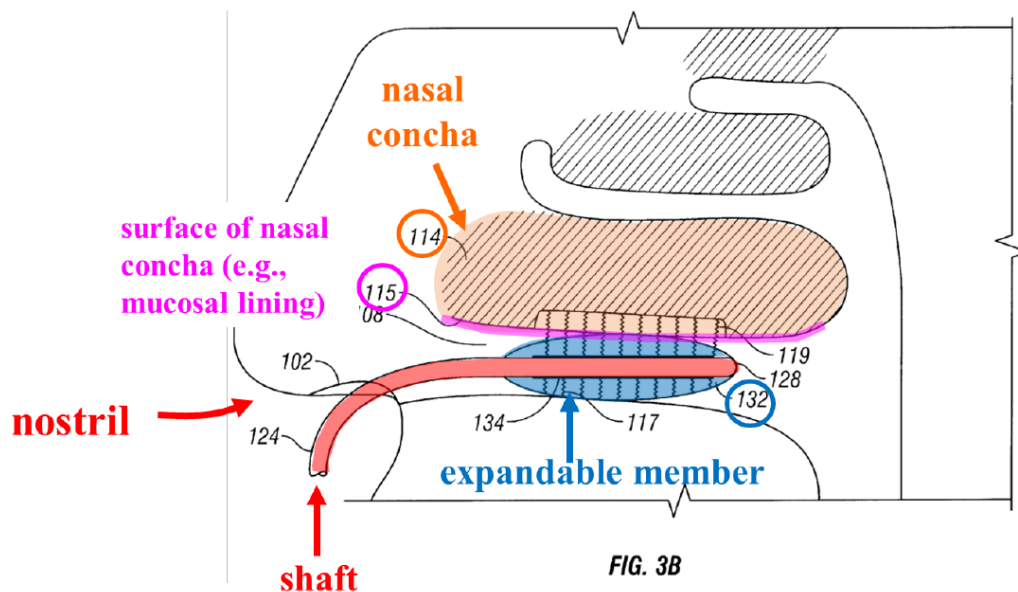


Figure 3B of Edwards-'535 shows “the expansion of the expandable member within the nasal meatus so that the energy delivery device is brought into energy communication with the surface of the nasal concha to be treated.” Ex. 1010, 3:48–51; Pet. 31. According to Petitioner, the uninflated state of expandable member 132 shown in Figure 3A and the inflated state shown in Figure 3B are the claimed first configuration and second configuration, respectively. Pet. 32 (citing Ex. 1010, 4:53–67, 5:22–30, 5:52–60, 6:33–36, 7:33–46, 7:61–8:46).

For limitation 1[d], Petitioner argues that Edwards-’535 teaches a plurality of energy delivery devices positioned on the surface of the expandable member 132. *Id.* at 33 (citing Ex. 1010, 8:17–32). Petitioner acknowledges that, although “[t]hese energy delivery devices/electrodes deliver RF energy in a bipolar mode,” Edwards-’535 does not describe “the details of how to deliver bipolar RF energy.” *Id.* at 34 (citing Ex. 1010, 8:17–32, 8:50–54, 10:30–32, 10:52–61). For the details omitted in Edwards-’535, Petitioner relies on Stern.

According to Petitioner, Stern teaches a system of selective delivery of bipolar RF energy to chosen pairs of separate bipolar electrodes. *Id.* at 34 (citing Ex. 1033, 2:36–40, 3:29–40, 12:7–13:55, claim 4, FIGs. 13, 15, 17, 18). As an example, Petitioner points to Figure 15, reproduced below.

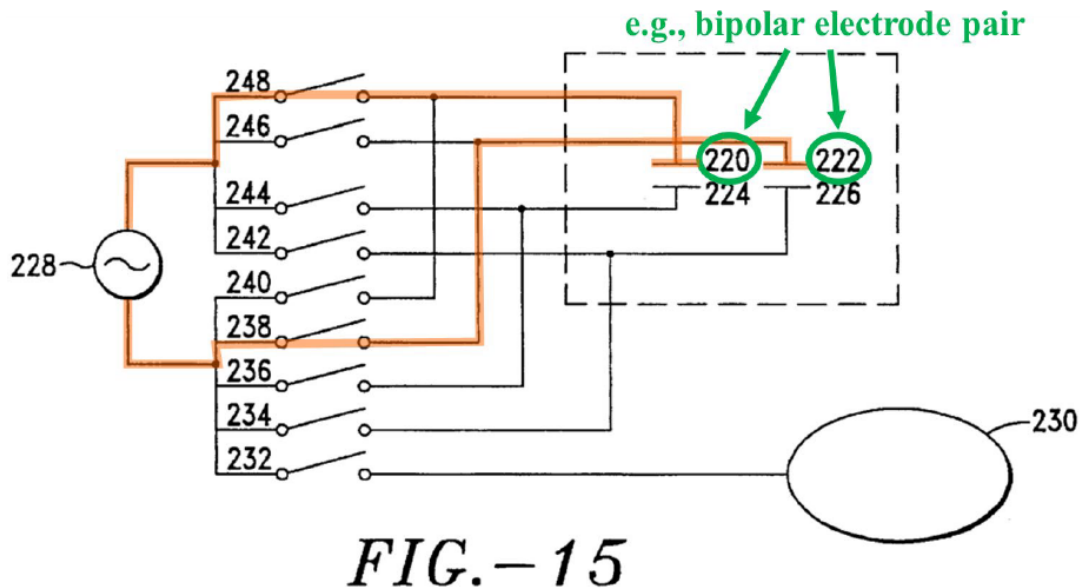


Figure 15 of Stern shown above, as annotated by Petitioner, “is a schematic of a selectable bipolar/monopolar RF energy delivery system for a plurality of electrodes or electrode segments.” Ex. 1033, 5:48–50; Pet. 36. Petitioner contends that in this figure, “the circuitry used to operate bipolar pairs includes four electrodes 220, 222, 224 and 226 and various switches

that determine the type of bipolar configuration,” and “if switch 248 and switch 238 are closed there will be bipolar operation between the electrodes 220 and 222.” Pet. 35 (citing Ex. 1033, 12:41–45, 12:65–13:2) (brackets omitted).

For limitation 1[e], Petitioner argues that the circuitry in Figure 15 of Stern is “capable of supplying energy to selected bipolar pairs via a ‘switching means’ where each bipolar pair is wired to its own output channel.” *Id.* at 41 (citing Ex. 1033, 2:49–53, 3:12–29, Claim 1, FIG. 15). “When particular switches are closed, only particular bipolar pairs are activated.” *Id.* at 42 (citing Ex. 1033, 12:46–13:2); *see also id.* (showing two annotated versions of Figure 15 to illustrate two different pairs of bipolar RF electrodes, each connected to voltage source 228 “via separate output channels” and can be independently activated).

For limitation 1[f], Petitioner contends that Edwards-’535 teaches impedance sensors that detect a variety of operating parameters, including the impedance generated. *Id.* at 44 (citing Ex. 1010, 9:14–23). Although Edward-’535 teaches impedance measurements in the monopolar embodiments, Petitioner continues, “Edwards-’535’s disclosure of impedance sensing is equally applicable when arranging such electrodes in one or more bipolar pairs.” *Id.* (citing Ex. 1010, 9:14–23, 10:4–11, 10:62–11:45).

Patent Owner does not dispute the combination of Edwards-’535 and Stern teaches each limitation of claim 1. *See* Prelim. Resp. 9–24. After reviewing the record, we find Petitioner’s analysis persuasive. *See* Pet. 25–36, 40–46.

This, however, does not end our obviousness inquiry. A patent claim “composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). We still “must further consider the factual questions of whether a person of ordinary skill in the art would be motivated to combine those references, and whether in making that combination, a person of ordinary skill would have had a reasonable expectation of success.” *Dome Patent L.P. v. Lee*, 799 F.3d 1372, 1380 (Fed. Cir. 2015). Based on the current record, and for purposes of this Decision, we find Petitioner has shown sufficiently that “a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.” *See In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1381 (Fed. Cir. 2016) (citations omitted).

Petitioner contends that Edwards-’535 and Stern are analogous art to the challenged claims. Pet. 36. Both are “in the same field as the ’286 patent and are reasonably pertinent to solving the problems addressed in the ’286 patent.” *Id.*

According to Petitioner, “Edwards-’535 demonstrates that RF ablation devices with multiple bipolar surface electrodes and used in body cavities were well-known” but does not teach the details on how to deliver energy. *Id.* at 37. Petitioner argues that “a POSITA would have been motivated to turn to other sources for information to implement independent energy delivery through each bipolar electrode.” *Id.*

Petitioner asserts that Stern is a good source for this information, given its detailed disclosure and schematic figures. *Id.* In addition, Petitioner argues that

a POSITA would have been faced with a finite choice between implementing a system with switches/relays and a single voltage source (like Stern) or multiple individual voltage sources for each electrode/electrode pair, and would have been motivated to select the former because it is safer, more practical, more reliable, smaller, simpler, and cheaper.

Id. at 37–38 (citing Ex. 1002 ¶¶ 113–115).

Petitioner further asserts that Stern identifies several benefits “for pairing bipolar RF surface electrodes . . . and wiring them to allow for independent delivery of RF energy to each bipolar pair.” *Id.* at 38 (citing Ex. 1033, 2:6–19, 6:44–62, 10:49–65, 12:25–37, 13:21–39, FIGs. 15, 18). Petitioner concludes that an ordinarily skilled artisan would have improved Edwards-’535’s device by including Stern’s technique because of these benefits. *Id.*

Petitioner argues that Edwards-’535 and Stern “describe similar techniques of delivering bipolar RF ablation energy through expandable devices to the mucosal tissue of different body cavities.” *Id.* at 39. According to Petitioner, “combining Edwards-’535 and Stern involves applying Stern’s known bipolar pairing technique to Edwards-’535’s known device that was ready for improvement (because Edwards-’535 omits electrode wiring details) to yield predictable results.” *Id.* Thus, Petitioner concludes that an ordinarily skilled artisan would have had a reasonable expectation of success when modifying Edwards-’535 in view of Stern. *Id.* at 38–40.

Patent Owner disagrees, arguing that “[a] person of ordinary skill in the art would not have combined Edwards-535 and Stern because those references are diametrically opposed and have the exact opposite objective and effect on the areas they treat.” Prelim. Resp. 9. According to Patent Owner, “Edwards-535 delivers energy to *ablate an internal portion* of the nasal concha while *preventing ablation of the surface* of the nasal concha,” whereas Stern delivers energy to *destroy the surface* of the endometrium while *not ablating the myometrium* below the endometrium.” *Id.* at 9–10. Patent Owner further asserts that “[t]he teachings of Edwards-535 and Stern are so in conflict with one another that they rise to the level of teaching away.” *Id.* at 23. On this record, and for the reasons explained below, we are not persuaded by Patent Owner’s arguments.

First, Stern is not limited to endometrial ablation; instead, its “electrode partitioning structure and the accompanying heating” can be used “for treatment of other body organs or tissues either externally or internally.” Ex. 1033, 18:30–33; *see also id.* at 18:33–37 (“The principles embodied herein and the methods utilizing those principles with respect to the delivery of controlled RF energy in a controlled environment have application in many areas, not only for controlled destruction of tissue but also for controlled heat treatment of tissue.”). Such teachings support Petitioner’s argument that “[a] POSITA would have known that technology from ablation devices for one part of the body would be applicable to devices used in other areas of the body.” Pet. 40 (citing Ex. 1002 ¶¶ 124–132; Ex. 1033, 18:27–40).

Second, evidence also supports Petitioner’s argument that “Edwards-’535 points a POSITA to references that have similar attributes as

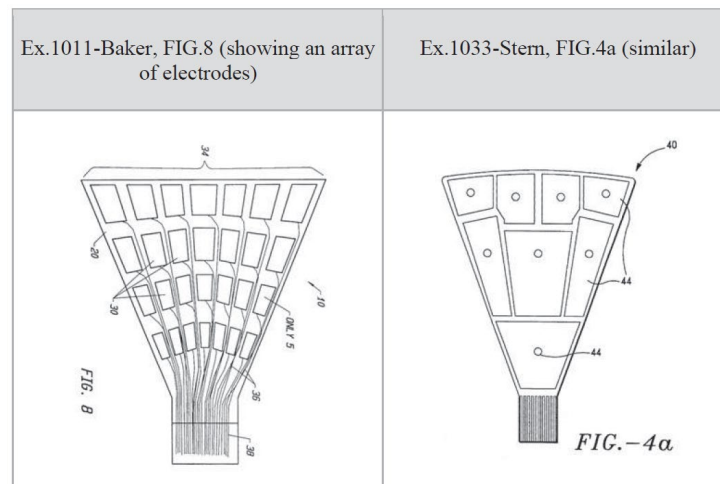
Stern.” *Id.* (citing Ex. 1010, 8:25–33). Indeed, Edwards-’535 incorporates by reference U.S. patent application No. 08/319,373 as describing an example of a suitable surface of the expandable member to dispose the energy delivery devices. Ex. 1010, 8:25–33. That application issued as U.S. Patent No. 5,575,788. *See* Ex. 1011 (“Baker”), code (21).

Like Stern, Baker teaches “an ablation apparatus for ablating an inner layer in an organ or a lumen of the body that includes an expandable member.” Ex. 1011, 3:10–12. According to Baker,

the ablation apparatus 10 can be a monopolar or bipolar electrode system. It is capable of expanding so that expandable member 12 becomes expanded within a selected body organ or lumen, and RF energy is delivered to an inner lining of the organ or lumen. RF and thermal energy are passed through the inner lining or surface for a time period selected that is sufficient to achieve a desired level of ablation.

Id. at 5:48–55. Specifically, Baker teaches an embodiment, in which “the body organ is the uterus, and the lining is the endometrium.” *Id.* at 5:60–61.

Petitioner argues that Stern and Baker “have similar attributes.” Pet. 40 (citing Ex.1011, Abstract, 5:66–67, 9:13–23, FIGs. 8, 9; Ex. 1033, 2:26–35). For example, Dr. Martin includes a figure, which we reproduce below.



The figure above is a side-by-side comparison of Figure 8 of Baker and Figure 4a of Stern. *Id.* Ex. 1002 ¶ 130. Facially, they appear to have similar shapes and configurations.

Patent Owner does not dispute that “Baker and Stern both depict very similar devices” (*id.*), or otherwise address Petitioner’s reliance on Baker as evidence of a motivation to combine Stern (*see* Pet. 40). On this record, we are persuaded that in view of Edwards-’535’s incorporation of Baker by reference and the similarity between Stern and Baker, an ordinarily skilled artisan would have been motivated to combine the teachings of Edwards-’535 and Stern.

Third, we disagree with Patent Owner’s teaching-away argument. *See* Prelim. Resp. 23. A teaching away requires that prior art references “criticize, discredit, or otherwise discourage the solution claimed.” *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004). Patent Owner has not shown that the references cited here discourage an ordinarily skilled artisan from modifying Edwards-’535’s device with Stern’s electrode configuration, i.e., multiple pairs of bipolar electrodes connected to separate radiofrequency output channels. Indeed, Stern expressly states that its “electrode partitioning structure” can be used for other applications (*see* Ex. 1033, 18:27–40), which on this record would appear to include the Edwards-’535’s device for ablating nasal tissue.

In sum, on this record, we determine Petitioner has established a reasonable likelihood that it would prevail in its assertion that claim 1 would have been obvious over the combination of Edwards-’535 and Stern.

Petitioner also asserts that the combination of Edwards-’535 and Stern renders claims 2, 3 and 7–9 obvious. Pet. 46–60. Patent Owner does not

argue these claims separately. *See* Prelim. Resp. 9–24. In any event, we institute *inter partes* review of all claims challenged on all of the grounds in the Petition. *See SAS Institute, Inc. v. Iancu*, 138 S. Ct. 1348, 1356 (2018); *see also* 37 C.F.R. § 42.108(a) (“When instituting *inter partes* review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.”).

D. Alleged Obviousness over Edwards-’535, Stern, and Edwards-’886

Petitioner asserts that claim 8 would have been obvious over the combination of Edwards-’535, Stern, and Edwards-’886. Pet. 60–62.

1. Edwards-’886

Edwards-’886 teaches “systems and methods [that] integrate the control of an energy generator, to supply energy to an electrode structure to heat a tissue region.” Ex. 1016, 2:61–63. In an illustrated embodiment, Edwards-’886 teaches that the integrated generator “has four independent radio frequency channels. Each channel is capable of supplying up to 15 watts of radio frequency energy with a sinusoidal waveform at 460 kHz.” *Id.* at 36:66–37:2.

2. Analysis

Claim 8 depends from claim 7. They are reproduced below.

7. The device of claim 1, further comprising: a radiofrequency generator configured to receive sensed signals from the at least one impedance sensor and deliver radiofrequency energy separately to each of the multiple radiofrequency output channels; and a cable coupled to the handle for plugging the handle into the radiofrequency generator.

8. The device of claim 7, wherein the radiofrequency generator is configured to deliver the radiofrequency energy in a form of

a 460 kHz sinusoid wave and to run at a power of between 5 and 75 watts.

Ex. 1001, 53:1–11.

Petitioner relies on the combination of Edwards-’535 and Stern as discussed above for obviousness of claims 1 and 7. Pet. 60. According to Petitioner, the same combination also teaches the additional limitation of claim 8. *Id.* (citing Ex. 1002 ¶ 211).

For this challenge, Petitioner includes Edwards-’886 as additional evidence for teaching the limitation recited in claim 8. *Id.* at 60–61 (citing Ex. 1002 ¶¶ 212–213; Ex. 1016, 36:66–37:10, 39:35–40:3, FIGs. 2, 73, 77). Also, relying on the teachings of Edwards-’886 and the testimony of Dr. Martin, Petitioner argues that “a POSITA would have been motivated to ablate using Edwards-’886’s parameters and would have had a reasonable expectation of success in doing so.” *Id.* at 61–62 (citing Ex. 1002 ¶¶ 214–217; Ex. 1016, Abstract, 10:58–11:15, 11:42–48, 36:66–37:10).

Patent Owner contends that Edwards-’866 does not “make[] up for the deficiencies regarding claim 1 noted above, including the lack of a motivation to combine Edwards-’535 and Stern and that Edwards-’535 and Stern teach away.” Prelim. Resp. 24. For the same reasons explained above, we are not persuaded by Patent Owner’s arguments. *See supra* Section II.C.3.

Thus, on this record, we determine Petitioner has established a reasonable likelihood that it would prevail in the assertion that claim 8 would have been obvious over the combination of Edwards-’535, Stern, and Edwards-’886.

E. Other Grounds

Petitioner further asserts that (1) claims 1–4 and 7–9 would have been obvious over the combination of Makower, Edwards-’535, and Stern; (2) claim 8 would have been obvious over the combination of Makower, Edwards-’535, Stern, and Edwards-’886; (3) claims 1–3 and 7–9 would have been obvious over the combination of Edwards-’535, Stern, and Liang; (4) claim 8 would have been obvious over the combination of Edwards-’535, Stern, Liang, and Edwards-’886; (5) claims 1–4 and 7–9 would have been obvious over the combination of Makower, Edwards-’535, Stern, and Liang; and (6) claim 8 would have been obvious over the combination of Makower, Edwards-’535, Stern, Liang, and Edwards-’886. Pet. 62–92.

Patent Owner does not dispute that each asserted combination teaches relevant limitations of the challenged claims. *See* Prelim. Resp. 25–51. Patent Owner, however, argues that Petitioner has not established that an ordinarily skilled artisan would have combined the teachings of the asserted prior art. *Id.*

Because Petitioner has met the threshold requirement of § 314(a), we need not determine whether Petitioner has also shown a reasonable likelihood of prevailing on these challenges. We encourage the parties to further address all relevant issues of all challenges to fully develop the record during trial.

III. CONCLUSION

Based on the current record, and for the reasons explained above, we find Petitioner has demonstrated a reasonable likelihood that it would prevail with respect to at least one claim challenged in the Petition. We therefore

institute an *inter partes* review of all challenged claims on all asserted grounds.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), *inter partes* review is hereby instituted on all challenged claims of the '286 patent based on all the asserted grounds set forth in the Petition; and

FURTHER ORDERED, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), notice is hereby given of the institution of a trial commencing on the entry date of this decision.

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